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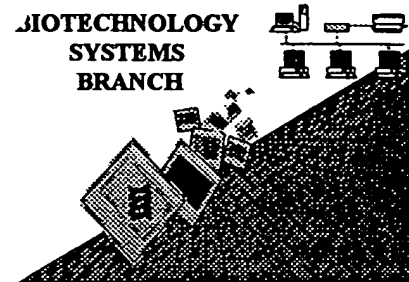
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# **RAW SEQUENCE LISTING** **ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following CRF diskette:

Application Serial Number:

08/846,658

Art Unit / Team No. :

1642

Date Processed by STIC:

4/18/98

**THE ATTACHED PRINTOUT EXPLAINS THE ERRORS DETECTED.**

**PLEASE BE SURE TO FORWARD THIS INFORMATION TO THE APPLICANTS BY EITHER:**

**1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANTS ALONG WITH A NOTICE TO COMPLY or;**

**2) CALLING APPLICANTS AND FAXING THEM A COPY OF THE PRINTOUT WITH A NOTICE TO COMPLY**

**THIS WILL INSURE THAT THE NEXT SUBMISSION RECEIVED FROM THEM WILL BE ERROR FREE.**

**IF YOU HAVE ANY FURTHER QUESTIONS, PLEASE CALL:**

**ARTI SHAH 703-308-4212**

RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/846,658DATE: 04/18/98  
TIME: 15:17:07

INPUT SET: S25060.raw

This Raw Listing contains the General  
Information Section and those Sequences  
containing ERRORS.

## SEQUENCE LISTING

Does Not Comply  
Corrected Diskette Needed

1  
2  
3 (1) General Information:  
4  
5 (i) APPLICANT: Adair, John R.  
6 Athwal, Diljeet S.  
7 Emtage, John S.  
8  
9 (ii) TITLE OF INVENTION: Humanised Antibodies  
10  
11 (iii) NUMBER OF SEQUENCES: 30  
12  
13 (iv) CORRESPONDENCE ADDRESS:  
14 (A) ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz & Norris  
15 (B) STREET: One Liberty Place - 46th Floor  
16 (C) CITY: Philadelphia  
17 (D) STATE: PA  
18 (E) COUNTRY: USA  
19 (F) ZIP: 19103  
20  
21 (v) COMPUTER READABLE FORM:  
22 (A) MEDIUM TYPE: Floppy disk  
23 (B) COMPUTER: IBM PC compatible  
24 (C) OPERATING SYSTEM: PC-DOS/MS-DOS  
25 (D) SOFTWARE: PatentIn Release #1.0, Version #1.25  
26  
27 (vi) CURRENT APPLICATION DATA:  
28 (A) APPLICATION NUMBER: US 08/846,658  
29 (B) FILING DATE: 01-MAY-1997  
30 (C) CLASSIFICATION:  
31  
32 (viii) ATTORNEY/AGENT INFORMATION:  
33 (A) NAME: Trujillo, Doreen Yanko  
34 (B) REGISTRATION NUMBER: 35,719  
35 (C) REFERENCE/DOCKET NUMBER: CARP-0057  
36  
37 (ix) TELECOMMUNICATION INFORMATION:  
38 (A) TELEPHONE: (215) 568-3100  
39 (B) TELEFAX: (215) 568-3439  
40  
41

ERRORED SEQUENCES FOLLOW:

RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/846,658DATE: 04/18/98  
TIME: 15:17:09

--> 42 (2) INFORMATION FOR SEQ ID NO: 1: *use numeral "1" not lower-case "l"* INPUT SET: S25060.raw  
43  
44 (i) SEQUENCE CHARACTERISTICS:  
45 (A) LENGTH: 20 base pairs  
46 (B) TYPE: nucleic acid  
47 (C) STRANDEDNESS: single  
48 (D) TOPOLOGY: linear  
49  
50 (ii) MOLECULE TYPE: cDNA  
51  
52  
53 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1  
54  
55 TCCAGATGTT AACTGCTCAC 20  
56

239 (2) INFORMATION FOR SEQ ID NO: 6:  
240 *add*  
241 *→* (i) SEQUENCE CHARACTERISTICS:  
242 (A) LENGTH: 1570 base pairs  
243 (B) TYPE: nucleic acid  
244 (C) STRANDEDNESS: single  
245 (D) TOPOLOGY: linear *see next page*  
246  
247 (ii) MOLECULE TYPE: cDNA  
248  
249  
250 (ix) FEATURE:  
251 (A) NAME/KEY: CDS  
252 (B) LOCATION: 41..1444  
253  
254 (ix) FEATURE:  
255 (A) NAME/KEY: mat\_peptide  
256 (B) LOCATION: 98..1444  
257  
258  
--> 259 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:  
260  
--> 261 GAATTCCTCCCT CTCCACAGAC ACTGAAACT CTGACTCAAC ATG GAA AGG CAC TGG 55  
262 Met Glu Arg His Trp  
263 -19 -15  
264  
--> 265 ATC TTT CTA CTC CTG TTG TCA GTA ACT GCA GGT GTC CAC TCC CAG GTC 103  
266 Ile Phe Leu Leu Leu Leu Ser Val Thr Ala Gly Val His Ser Gln Val  
267 -10 -5 1  
268  
--> 269 CAG CTG CAG CAG TCT GGG GCT GAA CTG GCA AGA CCT GGG GCC TCA GTG 151  
270 Gln Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val  
271 5 10 15  
272  
--> 273 AAG ATG TCC TGC AAG GCT TCT GGC TAC ACC TTT ACT AGG TAC ACG ATG 199  
274 Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met  
275 20 25 30

# RAW SEQUENCE LISTING PATENT APPLICATION US/08/846,658

DATE: 04/18/98  
TIME: 15:17:11

INPUT SET: S25060.raw

276																			
277																			
-->	278	CAC	TGG	GTA	AAA	CAG	AGG	CCT	GGA	CAG	GGT	CTG	GAA	TGG	ATT	GGA	TAC		247
	279	His	Trp	Val	Lys	Gln	Arg	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Ile	Gly	Tyr		
	280	35					40					45					50		
	281																		
	282																		
-->	283	ATT	AAT	CCT	AGC	CGT	GGT	TAT	ACT	AAT	TAC	ATT	CAG	AAG	TTC	AAG	GAC		295
	284	Ile	Asn	Pro	Ser	Arg	Gly	Tyr	Thr	Asn	Tyr	Asn	Gln	Lys	Phe	Lys	Asp		
	285					55					60					65			
	286																		
-->	287	AAG	GCC	ACA	TTG	ACT	ACA	GAC	AAA	TCC	TCC	AGC	ACA	GCC	TAC	ATG	CAA		343
	288	Lys	Ala	Thr	Leu	Thr	Thr	Asp	Lys	Ser	Ser	Ser	Thr	Ala	Tyr	Met	Gln		
	289				70					75					80				
	290																		
-->	291	CTG	AGC	AGC	CTG	ACA	TCT	GAG	GAC	TCT	GCA	GTC	TAT	TAC	TGT	GCA	AGA		391
	292	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Tyr	Cys	Ala	Arg		
	293			85				90					95						
	294																		
-->	295	TAT	TAT	GAT	GAT	CAT	TAC	TGC	CTT	GAC	TAC	TGG	GGC	CAA	GGC	ACC	ACT		439
	296	Tyr	Tyr	Asp	Asp	His	Tyr	Cys	Leu	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Thr		
	297		100					105					110						
	298																		
-->	299	CTC	ACA	GTC	TCC	TCA	GCC	AAA	ACA	ACA	GCC	CCA	TCG	GTC	TAT	CCA	CTG		487
	300	Leu	Thr	Val	Ser	Ser	Ala	Lys	Thr	Thr	Ala	Pro	Ser	Val	Tyr	Pro	Leu		
	301	115					120				125					130			
	302																		
-->	303	GCC	CCT	GTG	TGT	GGA	GAT	ACA	ACT	GGC	TCC	TCG	GTG	ACT	CTA	GGA	TGC		535
	304	Ala	Pro	Val	Cys	Gly	Asp	Thr	Thr	Gly	Ser	Ser	Val	Thr	Leu	Gly	Cys		
	305					135					140					145			
	306																		
-->	307	CTG	GTC	AAG	GGT	TAT	TTC	CCT	GAG	CCA	GTG	ACC	TTG	ACC	TGG	AAC	TCT		583
	308	Leu	Val	Lys	Gly	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Leu	Thr	Trp	Asn	Ser		
	309				150				155						160				
	310																		
-->	311	GGA	TCC	CTG	TCC	AGT	GGT	GTG	CAC	ACC	TTC	CCA	GCT	GTC	CTG	CAG	TCT		631
	312	Gly	Ser	Leu	Ser	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu	Gln	Ser		
	313			165				170					175						
	314																		
-->	315	GAC	CTC	TAC	ACC	CTC	AGC	AGC	TCA	GTG	ACT	GTA	ACC	TCG	AGC	ACC	TGG		679
	316	Asp	Leu	Tyr	Thr	Leu	Ser	Ser	Ser	Val	Thr	Val	Thr	Ser	Ser	Thr	Trp		
	317	180						185					190						
	318																		
-->	319	CCC	AGC	CAG	TCC	ATC	ACC	TGC	AAT	GTG	GCC	CAC	CCG	GCA	AGC	AGC	ACC		727
	320	Pro	Ser	Gln	Ser	Ile	Thr	Cys	Asn	Val	Ala	His	Pro	Ala	Ser	Ser	Thr		
	321	195					200					205				210			
	322																		
-->	323	AAG	GTG	GAC	AAG	AAA	ATT	GAG	CCC	AGA	GGG	CCC	ACA	ATC	AAG	CCC	TGT		775
	324	Lys	Val	Asp	Lys	Lys	Ile	Glu	Pro	Arg	Gly	Pro	Thr	Ile	Lys	Pro	Cys		
	325					215					220					225			
	326																		
-->	327	CCT	CCA	TGC	AAA	TGC	CCA	GCA	CCT	AAC	CTC	TTG	GGT	GGA	CCA	TCC	GTC		823
	328	Pro	Pro	Cys	Lys	Cys	Pro	Ala	Pro	Asn	Leu	Leu	Gly	Gly	Pro	Ser	Val		

# RAW SEQUENCE LISTING PATENT APPLICATION US/08/846,658

 DATE: 04/18/98  
 TIME: 15:17:12

INPUT SET: S25060.raw

	329	230	235	240	
330					
-->	331	TTC ATC TTC CCT CCA AAG ATC AAG GAT GTA CTC ATG ATC TCC CTG AGC	871		
	332	Phe Ile Phe Pro Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser			
	333	245 250 255			
334					
-->	335	CCC ATA GTC ACA TGT GTG GTG GTG GAT GTG AGC GAG GAT GAC CCA GAT	919		
	336	Pro Ile Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp			
	337	260 265 270			
338					
-->	339	GTC CAG ATC AGC TGG TTT GTG AAC AAC GTG GAA GTA CAC ACA GCT CAG	967		
	340	Val Gln Ile Ser Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln			
	341	275 280 285 290			
342					
-->	343	ACA CAA ACC CAT AGA GAG GAT TAC AAC AGT ACT CTC CGG GTG GTC AGT	1015		
	344	Thr Gln Thr His Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser			
	345	295 300 305			
346					
-->	347	GCC CTC CCC ATC CAG CAC CAG GAC TGG ATG AGT GGC AAG GAG TTC AAA	1063		
	348	Ala Leu Pro Ile Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe Lys			
	349	310 315 320			
350					
-->	351	TGC AAG GTC AAC AAC AAA GAC CTC CCA GCG CCC ATC GAG AGA ACC ATC	1111		
	352	Cys Lys Val Asn Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg Thr Ile			
	353	325 330 335			
354					
-->	355	TCA AAA CCC AAA GGG TCA GTA AGA GCT CCA CAG GTA TAT GTC TTG CCT	1159		
	356	Ser Lys Pro Lys Gly Ser Val Arg Ala Pro Gln Val Tyr Val Leu Pro			
	357	340 345 350			
358					
-->	359	CCA CCA GAA GAA GAG ATG ACT AAG AAA CAG GTC ACT CTG ACC TGC ATG	1207		
	360	Pro Pro Glu Glu Glu Met Thr Lys Lys Gln Val Thr Leu Thr Cys Met			
	361	355 360 365 370			
362					
-->	363	GTC ACA GAC TTC ATG CCT GAA GAC ATT TAC GTG GAG TGG ACC AAC AAC	1255		
	364	Val Thr Asp Phe Met Pro Glu Asp Ile Tyr Val Glu Trp Thr Asn Asn			
	365	375 380 385			
366					
-->	367	GGG AAA ACA GAG CTA AAC TAC AAG AAC ACT GAA CCA GTC CTG GAC TCT	1303		
	368	Gly Lys Thr Glu Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser			
	369	390 395 400			
370					
-->	371	GAT GGT TCT TAC TTC ATG TAC AGC AAG CTG AGA GTG GAA AAG AAG AAC	1351		
	372	Asp Gly Ser Tyr Phe Met Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn			
	373	405 410 415			
374					
375					
376					
-->	377	TGG GTG GAA AGA AAT AGC TAC TCC TGT TCA GTG GTC CAC GAG GGT CTG	1399		
	378	Trp Val Glu Arg Asn Ser Tyr Ser Cys Ser Val Val His Glu Gly Leu			
	379	420 425 430			
380					
381					

RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/846,658DATE: 04/18/98  
TIME: 15:17:15

INPUT SET: S25060.raw

```
--> 382 CAC AAT CAC CAC ACG ACT AAG AGC TTC TCC CGG ACT CCG GGT AAA 1444
383 His Asn His His Thr Thr Lys Ser Phe Ser Arg Thr Pro Gly Lys
384 435 440 445
385
--> 386 TGAGCTCAGC ACCCACAAAA CTCTCAGGTC CAAAGAGACA CCCACACTCA TCTCCATGCT 1504
387
--> 388 TCCCTTGAT AAATAAAGCA CCCAGCAATG CCTGGGACCA TGTAACAAAAA AAAAAAAG 1564
389
--> 390 GAATTC 1570
391
```

## (2) INFORMATION FOR SEQ ID NO:8:

494

## (i) SEQUENCE CHARACTERISTICS:

496 (A) LENGTH: 85 amino acids

497 (B) TYPE: amino acid

498 (D) TOPOLOGY: linear

499

500 (ii) MOLECULE TYPE: peptide

501

502 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

503

504 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

505 1 5 10 15

506

507 Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ile Lys Tyr

508 20 25 30

509

510 Leu Asn Trp Tyr Gln Gln Thr Pro Gly Lys Ala Pro Lys Leu Leu Ile

511 35 40 45

512

513 Thr Glu Ala Ser Asn Leu Gln Ala Gly Val Pro Ser Arg Phe Ser Gly

514 50 55 60

515

516 Ser Gly Ser Gly Thr Asp Tyr Thr Phe Thr Ile Ser Ser Leu Gln Pro

517 65 70 75 80

518

519 Glu Asp Ile Ala Thr

520 85

521

## --&gt; 522 (2) INFORMATION FOR SEQ ID NO:9:

523

524 ↑ (i) SEQUENCE CHARACTERISTICS:

525 insert (A) LENGTH: 23 amino acids

526 (B) TYPE: amino acid

527 (D) TOPOLOGY: linear

528

529 (ii) MOLECULE TYPE: peptide

530

531

532

## --&gt; 533 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

534

RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/846,658DATE: 04/18/98  
TIME: 15:17:16

INPUT SET: S25060.raw

535 Tyr Tyr Cys Gln Gln Tyr Gln Ser Leu Pro Tyr Thr Phe Gly Gln Gly  
536 1 5 10 15  
537  
538 Thr Lys Leu Gln Ile Thr Arg  
539 20  
540

## --&gt; 541 (2) INFORMATION FOR SEQ ID NO:10:

542

543 (i) SEQUENCE CHARACTERISTICS:

--&gt; 544 (A) LENGTH: 126 amino acids

545 (B) TYPE: amino acid

546 (D) TOPOLOGY: linear

547

548 (ii) MOLECULE TYPE: peptide

549

550

551

552 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

553

554 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg

555 1 5 10 15

556

557

558 Ser Leu Arg Leu Ser Cys Ser Ser Ser Gly Phe Ile Phe Ser Ser Tyr

559 20 25 30

560

561 Ala Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val

562 35 40 45

563

564 Ala Ile Ile Trp Asp Asp Gly Ser Asp Gln His Tyr Ala Asp Ser Val

565 50 55 60

566

567 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe

568 65 70 75 80

569

--> 570 Leu Gln Met Asp Ser Leu Arg Pro Glu Asp Thr Gly Val Thy Phe Cys

571 85 90 95

572

573 Ala Arg Asp Gly Gly His Gly Phe Cys Ser Ser Ala Ser Cys Phe Gly

574 100 105 110

575

576 Pro Asp Tyr Trp Gly Gln Gly Thr Pro Val Thr Val Ser Ser

577 115 120 125

578

## 579 (2) INFORMATION FOR SEQ ID NO: 11:

580

581 (i) SEQUENCE CHARACTERISTICS:

--&gt; 582 (A) LENGTH: 119 amino acids

583 (B) TYPE: amino acid

584 (C) TOPOLOGY: linear

585

see next page



RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/846,658DATE: 04/18/98  
TIME: 15:17:18

INPUT SET: S25060.raw

586 (ii) MOLECULE TYPE: peptide  
587  
588  
589 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:  
590  
591  
592 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg  
593 1 5 10 15  
594  
--> 595 Ser Leu Arg Leu Ser Cys Ser Ser Ser Gly Try Thr Phe Thr Arg Tyr  
596 20 25 30  
597  
598 Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
599 35 40 45  
600  
601 Ala Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe  
602 50 55 60  
603  
604 Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe  
605 65 70 75 80  
606  
607 Leu Gln Met Asp Ser Leu Arg Pro Glu Asp Thr Gly Val Tyr Phe Cys  
608 85 90 95  
609  
610 Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly  
611 100 105 110  
612  
613 Thr Thr Leu Thr Val Ser Ser  
614 115  
615

---

982 (2) INFORMATION FOR SEQ ID NO:22:  
983  
984 (i) SEQUENCE CHARACTERISTICS:  
--> 985 (A) LENGTH: 119 amino acids  
986 (B) TYPE: amino acid  
987 (D) TOPOLOGY: linear  
988  
989 (ii) MOLECULE TYPE: peptide  
990  
991  
992  
993 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:  
994  
995 Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg  
996 1 5 10 15  
997  
998 Ser Leu Arg Leu Ser Cys Ser Ala Ser Gly Tyr Thr Phe Thr Arg Tyr  
999 20 25 30  
1000  
1001 Thr Met His Trp Val Arg Gln Ala Pro Cys Lys Gly Leu Glu Trp Ile  
1002 35 40 45  
1003

*next page*

# RAW SEQUENCE LISTING PATENT APPLICATION US/08/846,658

 DATE: 04/18/98  
 TIME: 15:17:19

INPUT SET: S25060.raw

```

--> 1004  Gly Tyr Ile Ash Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Val
      1005      50      55      60
      1006
      1007  Lys Asp Arg Phe Thr Ile Ser Thr Asp Lys Ser Lys Ser Thr Ala Phe
      1008      65      70      75      80
      1009
      1010  Leu Gln Met Asp Ser Leu Arg Pro Glu Asp Thr Gly Val Tyr Phe Cys
      1011      85      90      95
      1012
      1013  Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly
      1014      100      105      110
      1015
      1016  Thr Thr Leu Thr Val Ser Ser
      1017      115
      1018
  
```

```

1056  (2) INFORMATION FOR SEQ ID NO:24:
1057
1058      (i) SEQUENCE CHARACTERISTICS:
--> 1059      (A)LENGTH: 119 amino acids
      1060      (B)TYPE: amino acid
      1061      (D)TOPOLOGY: linear
      1062
      1063      (ii) MOLECULE TYPE: peptide
      1064
      1065      insert
      1066
      1067      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:
      1068
      1069  Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
      1070      1      5      10      15
      1071
      1072  Ser Leu Arg Leu Ser Cys Ser Ala Ser Gly Tyr Thr Phe Thr Arg Tyr
--> 1073      20      25      30
      1074
--> 1075  Thr Met His Trp Val Arg Gln Ala Pro Cys Lys Gly Leu Glu Trp Ile
--> 1076      35      40      45
      1077
--> 1078  Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Val
--> 1079      50      55      60
      1080
--> 1081  Lys Asp Arg Phe Thr Ile Ser Thr Asp Lys Ser Lys Ser Thr Ala Phe
--> 1082      65      70      75      80
      1083
--> 1084  Leu Gln Met Asp Ser Leu Arg Pro Glu Asp Thr Gly Val Tyr Phe Cys
--> 1085      85      90      95
      1086
--> 1087  Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly
--> 1088      100      105      110
      1089
--> 1090  Thr Thr Leu Thr Val Ser Ser
--> 1091      115
      1092
  
```

OK

(2) INFORMATION FOR SEQ ID NO:25:

08/846,658

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 107 amino acids  
(B) TYPE: amino acid  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5				10						15	
Asp	Arg	Val	Thr	Ile	Thr	Cys	Ser	Ala	Ser	Ser	Ser	Val	Ser	Tyr	Met
			20					25					30		
Asn	Trp	Tyr	Gly	Gln	Thr	Pro	Gly	Lys	Ala	Pro	Lys	Leu	Leu	Ile	Tyr
		35					40					45			
Asp	Thr	Ser	Lys	Leu	Ala	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly	Ser
	50					55					60				
Gly	Ser	Gly	Thr	Asp	Tyr	Thr	Phe	Thr	Ile	Ser	Ser	Leu	Gln	Pro	Glu
65				70						75					80
Asp	Ile	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Trp	Ser	Ser	Asn	Pro	Phe	Thr
			85						90					95	
Phe	Gly	Gln	Gly	Thr	Lys	Leu	Gln	Ile	Thr	Arg					
			100					105							

(2) INFORMATION FOR SEQ ID NO:26:

08/846,658

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 107 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:

Gln	Ile	Val	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5				10						15	
Asp	Arg	Val	Thr	Ile	Thr	Cys	Ser	Ala	Ser	Ser	Ser	Val	Ser	Tyr	Met
			20					25					30		
Asn	Trp	Tyr	Gln	Gln	Thr	Pro	Gly	Lys	Ala	Pro	Lys	Arg	Trp	Ile	Tyr
		35					40					45			
Asp	Thr	Ser	Lys	Leu	Ala	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly	Ser
	50					55					60				
Gly	Ser	Gly	Thr	Asp	Tyr	Thr	Phe	Thr	Ile	Ser	Ser	Leu	Gln	Pro	Glu
65				70					75						80
Asp	Ile	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Trp	Ser	Ser	Asn	Pro	Phe	Thr
				85					90					95	
Phe	Gly	Gln	Gly	Thr	Lys	Leu	Gln	Ile	Thr	Arg					
			100					105							

(2) INFORMATION FOR SEQ ID NO:28:

08/846,658

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 107 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5				10						15	
Asp	Arg	Val	Thr	Ile	Thr	Cys	Ser	Ala	Ser	Ser	Ser	Val	Ser	Tyr	Met
			20					25					30		
Asn	Trp	Tyr	Gln	Gln	Thr	Pro	Gly	Lys	Ala	Pro	Lys	Arg	Trp	Ile	Tyr
		35					40					45			
Asp	Thr	Ser	Lys	Leu	Ala	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly	Ser
	50					55					60				
Gly	Ser	Gly	Thr	Asp	Tyr	Thr	Phe	Thr	Ile	Ser	Ser	Leu	Gln	Pro	Glu
65					70					75					80

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Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Phe Thr  
 85 90 95  
 Phe Gly Gln Gly Thr Lys Leu Gln Ile Thr Arg  
 100 105

(2) INFORMATION FOR SEQ ID NO:29

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 107 amino acids
  - (B) TYPE: amino acid
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29

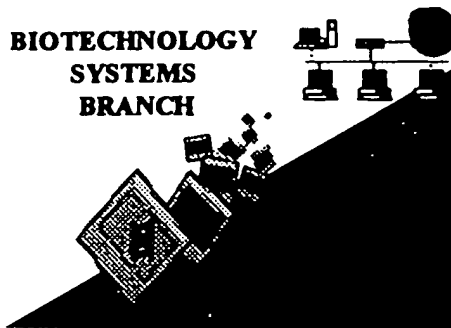
Gln Ile Val Leu Thr Gln Ser Pro Ala Ile  
 1 5 10  
 Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys Ser Ala Ser  
 15 20 25  
 Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser Gly Thr Ser  
 30 35 40  
 Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Leu Ala Ser Gly Val Pro  
 45 50 55  
 Ala His Phe Arg Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile  
 60 65 70  
 Ser Gly Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp  
 75 80 85 90  
 Ser Ser Asn Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Asn  
 95 100 105  
 Arg

(2) INFORMATION FOR SEQ ID NO:30

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 119 amino acids
  - (B) TYPE: amino acid
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:30

Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg  
 1 5 10  
 Pro Gly Ala Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe  
 15 20 25

Thr 30	Arg	Tyr	Thr	Met	His 35	Trp	Val	Lys	Gln	Arg 40	Pro	Gly	Gln	Gly	Leu 45
Glu	Trp	Ile	Gly	Tyr 50	Ile	Asn	Pro	Ser	Arg 55	Gly	Tyr	Thr	Asn	Tyr 60	Asn
Gln	Lys	Phe	Lys 65	Asp	Lys	Ala	Thr	Leu 70	Thr	Thr	Asp	Lys	Ser 75	Ser	Ser
Thr	Ala	Tyr 80	Met	Gln	Leu	Ser	Ser 85	Leu	Thr	Ser	Glu	Asp 90	Ser	Ala	Val
Tyr	Tyr 95	Cys	Ala	Arg	Tyr	Tyr 100	Asp	Asp	His	Tyr	Cys 105	Leu	Asp	Tyr	Trp
Gly 110	Gln	Gly	Thr	Thr	Leu 115	Thr	Val	Ser	Ser						



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